

Indian Institute of Technology Palakkad भारतीय प्रौद्योगिकी संस्थान पालक्काड

STORES & PURCHASE SECTION

Email: purchase@iitpkd.ac.in Telephone: 04923-226586/87 GSTIN: 32AAAAI9910J1ZR

Tender No.: GTE/2022-23/PRJ_089
Date of Publication: 25-11-2022
Date/Time of Closing: 16-12-2022, 1500 hours

Indian Institute of Technology Palakkad Invites Global Tender under Two-bid system for the:

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF INDUCTIVELY COUPLED PLASMA-OPTICAL EMISSION SPECTROMETER (ICP-OES)

Conforming to the specifications as in BoQ Technical.

Tender Documents may be downloaded from the e-Wizard Portal https://mhrd.euniwizarde.com/. Aspiring Bidders who have not enrolled / registered in e-Wizard should enroll / register before participating through the website https://mhrd.euniwizarde.com/. Bidders are advised to go through instructions provided at "Procedure for Submission of E-tender". [Special Instructions to the Contractors/Bidders for the e-submission of the bids online through this e-Wizard Portal"].

Bidders can access tender documents on the website. For searching in the site, kindly go to Live Tenders option, Click "Advance Search" and select Department as 'IIT Palakkad'. Thereafter, Click on "Search" button to view all IIT Palakkad tenders. Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website https://mhrd.euniwizarde.com/ as per the timeline below.

No manual bids will be accepted. All tender documents including Techno-Commercial, Technical and Financial bids should be submitted in the e-Wizard portal.

S. No.	Events	Date and Time
1	Publication of the Tender Document	25-11-2022
3	Last Date/Time for submission of ONLINE Bids	16-12-2022, 1500 hours
4	Opening of Technical Bids	16-12-2022, 1515 hours

TERMS AND CONDITIONS

1	GENERAL	(a) The responsibility of submission of the bids on or before the last date shall
1	GENERAL	rest with the tenderer. The institute will hold no responsibility for the non-
		receipt of the bids or the bids received after the date/time specified. Any
		bid received by IITPKD after the bid submission deadline prescribed by
		IITPKD, shall be rejected and returned unopened to the Bidder.
		(b) Canvassing or offer of an advantage or any other inducement by any
		person with a view to influencing acceptance of a bid is an offence under
		the Laws of India. Such action will result in the rejection of bid, in
		addition to other punitive measures.
		(c) Each bidder shall submit only one bid, either by himself or as a partner in
		a joint venture or as a member of the consortium. If a bidder or if any of
		the partners in a joint venture or any one of the members of the consortium
		participate in more than one bid, the bids (of both the individual and the
		partnership/consortium/joint venture) are liable to be rejected.
		(d) The bidder shall bear all costs associated with the preparation and
		submission of his bid and IITPKD shall in no case be responsible or liable
		for those costs, regardless of the conduct or outcome of the tender process.
		(e) IITPKD will respond to any request for clarification or modification
		of the Tender Document that are received up to TWO DAYS prior to
		the deadline for submission of bids prescribed by HTPKD. For this
		purpose, the prospective bidder(s) requiring clarification in the
		Tender Document shall notify IITPKD through the ONLINE Portal
		ONLY. Any such clarification, together with all the details on which
		the clarification had been sought, will be published in the ONLINE
		Portal ONLY. Deviations, if any, observed by the Institute in the
		submitted bids, from the Terms and Conditions of the Tender
		Document will not be accepted by the Institute.
		(f) Except for any such clarification by the Institute, which is expressly stated
		to be an addendum to the tender document issued by the Registrar, IIT
		Palakkad, no written or oral communication, presentation or explanation
		by any other employee of any of the Sections/Departments of the Institute,
		shall be taken to bind or fetter the Institute.
		(g) The bidder is expected to examine all instructions, forms, terms and
		conditions in the Tender Document. In the event of discovery of any
		missing pages, the bidder shall inform the same to the Section/
		Department concerned. Failure to furnish the information required by the
		Tender Document or submission of a tender not substantially responsive to
		the Tender Document in every respect will be at the bidder's risk and may
		result in rejection of the bid.
		(h) The bidder shall not make or cause to be made any alteration, erasure or
		obliteration to the text of the Tender Document.
		(i) The Supplier shall not, without the prior written consent of the IITPKD,
		assign to any third party, the Contract or any part thereof.
2	COMPOSITION OF	(a) The Tender Document comprises of:
4	THE TENDER	Instruction to the bidders including terms and conditions
ļ	DOCUMENT	Technical Specifications (Annexure-I)
ļ	2300111111	2. Undertaking by the Bidder (Annexure-II)
ļ		3. Fall Clause Notice Certificate (Annexure-III)
ļ		4. Annexure regarding Blacklisting/Debarment (Annexure-IV)
ļ		5. Self Declaration – MII Order (Annexure-V)
		, ,

3	DOCUMENTS	(a) The Technical, Techno-commercial and Commercial Bids (Cover
	COMPRISING THE	One) and Commercial Bid (Cover Two) shall be submitted ONLINE
	BID	through the e-Wizard Portal.
		(b) Bids submitted in any mode other than ONLINE will be rejected outright.
		(c) Documents establishing the conformity of the terms and conditions of the
		Tender Document shall be provided along with the bid. The offer/bids
		should be sent only for a system or that is available in the market and
		supplied to a number of customers. A list of customers in India and abroad
		with details must accompany the quotations. Quotations for a prototype
		machine will not be accepted.
		_
		(d) Original catalogue (not any photocopy) of the quoted model duly signed
		by the principals must accompany the quotation in the Technical bid. No
		prices should ever be included in the Technical bid.
		(e) Compliance or Confirmation report with reference to the specifications
		and other terms and conditions should also be obtained from the principal.
		(f) Information related to the agency/bidder such as photocopies of the
		Registration/PAN/GST/TIN shall be furnished.
		(g) The technical bid should consist of all technical details along with
		commercial terms and conditions. No prices should be included in the
		technical bid. Mentioning of Prices in the Technical Bid shall lead to
		<u>DISQUALIFICATION.</u>
		(h) Bidders who are bidding for this tender shall,
		1) Should have implemented at least THREE orders of ION
		CHROMATOGRAPHY during the previous THREE financial
		years (2019-20, 2020-21, 2021-22) from Centrally Funded Technical
		Institutes (IITs, NITs, IISc, IISER), DRDO, ISRO, CSIR labs or
		Government Firms in India. Copies of the most recent purchase orders
		and user certificates of successful implementation must be included.
		Copies of financial statements or evidence of turnover must be
		furnished.
		2) Have an Average Annual Turnover of Rs. 2,00,00,000/- (RUPEES
		TWO CRORES ONLY) during the last THREE financial years
		(2019-20, 2020-21, 2021-22). The bidder shall enclose the audited
		statements of the indicated financial years, which should have been
		certified by a Chartered Accountant or a Competent Authority.
		3) Digitally signed Tender Document should be submitted in Cover One.
4	EARNEST MONEY	(a) The bidder shall furnish EMD of Rs. 1,81,720/- (Rupees One Lakh
	DEPOSIT (EMD)	Eighty One Thousand Seven Hundred and Twenty Only) through
		online payment gateway in the E-Wizard.
		(b) Bids not accompanied by EMD shall be DISQUALIFIED.
5	PERFORMANCE	(a) The performance security shall be submitted within FIFTEEN DAYS of
	SECURITY	receipt of the material by the IITPKD. The successful bidder shall furnish
		the Performance Security equal to 3% of the order / contract value
		(excluding the value of annual maintenance charges). The Performance
		Security shall be valid all along the warranty period and shall extend up to
		SIXTY DAYS after the date of completion of warranty period. It shall be
		ensured by the successful bidder that the validity of the Performance
		Security submitted is extended depending on the date of commencement
		of the Warranty.
		(b) The performance security shall be a bank guarantee (in the format as
		provided) issued by the Indian Scheduled bank acceptable to the IITPKD
		or a Demand Draft favoring, INDIAN INSTITUTE OF TECHNOLOGY
		PALAKKAD payable at PALAKKAD.
		(c) The performance security shall automatically become null and void once
		all the obligations of the Supplier under the Contract have been fulfilled,
	<u>, </u>	

		including, but not limited to, any obligations during the Warranty Period and any extensions to the period. The performance security shall be returned to the Supplier not later than fifteen (15) days after its expiration. (d) Failure of the successful Bidder to comply with the requirements shall constitute enough grounds for the annulment of the award and forfeiture of the EMD, in which event the IITPKD may make the award to the next lowest evaluated bid submitted by a qualified Bidder or call for new bids.
6	BID PRICES AND	(a) Prices must be quoted separately for each equipment/item identified.
	CURRENCY	 (b) Price quoted for equipment/items shall include all the costs associated with packing, local transportation from the point of clearance to HTPKD, insurance, loading, unloading and associated delivery charges. The delivery shall be on DOOR DELIVERY basis to the institute including its installation, commissioning, integration and validation. It is the sole responsibility of the supplier to ensure that the equipment is delivered on DDP mode to HT Palakkad. An undertaking to this effect as in Annexure-II. (c) Prices quoted by the bidder shall be fixed during the validity of the bid. (d) Prices of the equipment/items shall be quoted in Indian Purces (INP)
		(d) Prices of the equipment/items shall be quoted in Indian Rupees (INR) / Foreign Currency.
7	LETTER OF CREDIT	 (a) Upon the successful Bidder's furnishing of the copy of the Purchase Order duly signed on each page and the Performance Security, for the equipment ordered in foreign currency, ITPKD will open a letter of credit (LC) in a convenient Nationalized Bank in India. For opening of LC necessary information shall be provided by the supplier or its authorized agents. (b) In case the successful bidder is a foreign company and wishes to submit Performance Security in the form of Bank Guarantee, the Bank Guarantee should be routed through the Beneficiary Bank to the end user bank. Otherwise, the Indian Agent of the foreign vendor shall submit a Bank Guarantee from a Nationalized Bank of India. The following documents shall be submitted in case of an Indian agent submitting the Performance Security on behalf of his principal: Foreign principal's Proforma invoice indicating the commission payable to the Indian agent and nature of after-sales service to be rendered by the Indian agent. Copy of the agency agreement with the foreign principal and the precise relationship between them and their mutual interest in the business. (c) For imported equipment, a Letter of Credit (LC) shall be opened for 100% CIP price on receipt of the acknowledgment of the purchase order. However, 80% of the LC amount only shall be released on proof of the shipment of the consignment with necessary documents to be provided in detail at the time of placing of the purchase order. Balance 20% of the LC amount shall be released upon the receipt of a performance security of 5% of the total value of the purchase order and installation, commissioning, integration, validation and installation report/certification jointly given by the end user and the supplier. Any costs associated with the amendments made in the LC as per the request made by the Supplier s should be borne by the supplier and not on the institute.

8	PERIOD OF VALIDITY	a) Bids shall remain valid for a period of 180 DAYS after the date of the	
	OF BIDS	deadline for submission of bids prescribed by IITPKD.b) If the deadline is extended due to unforeseen circumstances, the bid	
		validity shall be deemed to have extended accordingly.	
9	TIME FOR SUPPLY,	(a) The Supplier shall supply the equipment/items within the period specified	
	INSTALLATION,	in the tender document i.e. within SIX TO EIGHT WEEKS of signing	
	COMMISSIONING	the purchase order or within the period mutually agreed between IITPKD	
	AND VALIDATION OF	and supplier. All the equipment and accessories should be delivered at	
	THE	GSCOE WETLAB (LAB 4) Technology Innovation Foundation of IIT	
	EQUIPMENTS/ITEMS	Palakkad (TECHIN), Main Campus, IIT PKD, Kanjikode-	
		Malampuzha Road, Pudusserry West, Kanjikode, Kerala 678623.	
		(b) The Supplier shall thereafter proceed with the installation, commissioning,	
		integration and validation and demonstrate operational acceptance of the equipment/items within the period specified. The equipment/items shall be	
		installed and commissioned by the successful bidder within 20 to 25 days	
		from the date of its receipt.	
		(c) The tenderer should indicate clearly the time required for delivery of the item. In case there is any deviation in the delivery schedule, liquidated	
		damages clause will be enforced or penalty for the delayed supply period	
		will be levied.	
		(d) In the event of failure of supply of the item/equipment/items within the	
		stipulated delivery schedule, IITPKD has all the right to purchase the	
		item/equipment/items from other sources on the total risk of the Supplier	
10	BRODUCT URCE A DEC	under the risk purchase clause.	
10	PRODUCT UPGRADES	The Supplier shall continue to support and maintain the version/model of the Equipment supplied by upgrading the software and the hardware as and when	
		amendments are carried out in the existing version or the product is upgraded.	
		Whereas upgrades to the software shall be supplied free of cost, the Supplier may	
		charge for upgrade in hardware provided it is of major nature. An upgraded higher	
		version of the instrument and software related with the instrument shall be supplied.	
11	PENALTIES	If the Supplier fails to complete any of the activities in accordance with the time	
		specified for it, or any extension of time granted by IITPKD, Liquidated Damages Clause shall be invoked.	
12	UP-TIME	(a) The Supplier should provide up-time guarantee of 95% [24 (hours) X 7 (days)	
12	GUARANTEE/	X 365 (days)] basis during the warranty period.	
	DOWNTIME	(b) The Supplier should provide up-time guarantee of 95% (24 hours/day basis)	
	PENALTY CLAUSE	both during warranty. If downtime exceeds the 5% limit, extension of the	
		warranty period will be twice the excess down time period.	
13	LIQUIDATED	If a firm accepts an order and fails to execute the order, in full or part, as per	
	DAMAGES	the terms and conditions stipulated therein, it will be open to the Institute to	
		recover liquidated damages from the firm at the rate of 1% of the value of the	
		undelivered goods per month or part thereof, subject to a maximum of 5% of the value of the undelivered goods. It will also be open to the Institute	
		alternatively, to arrange procurement of the required stores from any source, at	
		the risk and expense of the firm, accepted and failed to execute the order	
		according to stipulations agreed upon. This will also entail the removal of the	
		defaulters' name from the approved/registered list of Suppliers.	
14	EFFECT OF FORCE	(a) If the Supplier is prevented, hindered, or delayed from or in performing	
	MAJEURE	any of its obligations under the Contract by an event of Force Majeure,	
		then it shall notify the IITPKD in writing of the occurrence of such event	
		and the circumstances of the event of Force Majeure within FIFTEEN DAYS after the occurrence of such event.	
		(b) The Supplier, when affected by the event of Force Majeure shall use	
		reasonable efforts to mitigate the effect of the event of Force Majeure	
	l	5	

		upon its performance of the Contract and to fulfill its obligations under the Contract, but without prejudice to IITPKD's right to terminate the Contract. (c) No delay or non-performance by the Supplier caused by the occurrence of any event of Force Majeure shall: i. Constitute a default or breach of the Contract; ii. Give rise to any claim for damages or additional cost or expense occasioned by the delay or non-performance. (d) If the performance of the Contract is substantially prevented, hindered, or delayed for a single period of more than THIRTY DAYS or an aggregate period of more than SIXTY DAYS on account of one or more events of Force Majeure, the IITPKD shall have the right to terminate the Contract by giving a notice to the Supplier.
15	EXTENSION OF TIME LIMITS FOR SUPPLY AND MAKING OPERATIONAL, THE EQUIPMENT	 (a) The time limit for supply, installation & commissioning, integration & validation shall be extended if the supply is delayed or impeded in the performance of any of its obligations under the Contract by reason of any of the following: i. Any occurrence of Force Majeure; ii. Any other matter specifically mentioned in the Contract; (b) By such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Supplier.
16	GOVERNING LAW AND SETTLEME NT OF DISPUTES	 (a) The Contract shall be governed by and interpreted in accordance with the laws of India. (b) Any dispute or claim arising out of/relating to this Contract of the breach, termination or the invalidity thereof, shall be settled by the Hon'ble Courts of Justice at Palakkad. (c) The page number should be marked in all pages serially (including all supporting documents enclosed with the tender document) and the declaration for the same shall be submitted by the bidder as in Annexure-II. (d) IITPKD reserves the right to accept or reject any or all the tenders in part or whole or may cancel the tender at its sole discretion without assigning any reason whatsoever. No further correspondence in this regard will be entertained.

AWARD OF CONTRACT

1	AWARD CRITERIA	1.	IITPKD will award the Contract to the Bidder whose bid
1	AWARDCRITERIA	1.	has been determined to be substantially responsive and as
			per the Order No. P-45021/2/2017-PP(BE-II) dated 16-
			09-2020 from Department for Promotion of Industry
			and Internal Trade (Public Procurement Section),
			Ministry of Commerce and Industry, Govt. of India.
			rimistry of commerce and industry, dove of industry
		2.	The Institute reserves the right to buy different
			items/quantities from different bidders considering price of
			individual/group of equipment/items or any other factors
			as decided by the Committee.
2	AWARD OF PURCHASE ORDER	1.	Prior to the expiration of the period of bid validity,
			IITPKD will issue the Letter of Intent / Purchase Order to
		2	the successful Bidder in writing.
		2.	Any amendment(s) in the Purchase Order will be permitted within SEVEN DAYS of its issuance. No amendments
		2	will be permitted beyond this period.
		3.	The Purchase Order will constitute the foundation of the Contract.
	CONTRACT AGREEMENT	1	Within SEVEN DAYS of receipt of the Purchase Order,
3	CONTRACT AGREEMENT	1.	the successful Bidder shall sign and date its copy on each
			page and return it to the Purchaser.
		2.	Copy of Purchase Order duly signed and dated by the
		2.	successful Bidder on each page shall constitute the
			Contract Agreement.
4	CONTRACT DOCUMENTS /	1.	All documents forming part of the Contract (and all parts
	AMENDMENT TO CONTRACT		of these documents) are intended to be correlative,
			complementary and mutually explanatory. The Contract
			shall be read as a whole.
		2.	The order of precedence of the Contract documents shall
			be as follows:
			(i) Contract Agreement/Purchase Order
			(ii) All Forms/Annexures
			(iii) equipment/items and their requirement
			(iv) Supplier's Bid
			(v) Tender Document
		3.	No amendment or other variation of the Contract shall be
			effective unless it is in writing, is dated, expressly refers to
			the Contract and is signed by a duly authorized
			representative of each party to the Contract.

REGISTRAR

Name of the Item		Inductively Coupled Plasma-Optical Emission Spectrometer (ICP-OES)
Quantity	:	1 No.
Warranty Period	•	3 Years

Technical Specification

Technical specifications:

S. No	Specifications	Descriptions
		The ICP spectrometer system should be a bench top model with compact
		size, able to determine trace and measure elements in diverse kinds of
		samples like soil, sludge, groundwater, water samples, etc.
		The system should be able to determine major, minor and trace elements in a single run measurement.
1	ICP-OES system	Spectrometer: It should be fully PC-controlled ICP-OES with the following
		specifications. The complete system should have extensive safety & service
		diagnostic facility.
		Instrument should have the provision to start the analysis within ten minutes
		from first start in a day, with no stabilization time required after 10 minutes
		for optical stability.
		The instrument must be a dual-view ICP-OES Spectrometer for multi-
	Optical & detection	element analysis using solid state detector technology.
		The Instrument must have an Echelle based optics that utilizes a single
2		charge-coupled device (CCD)/charge induced detector (CID) or better.
2		• The optical resolution of the system should be less than 0.009 nm at 200
		nm
		The entire optical system must be enclosed in a purged and thermo
		stated optical enclosure.
3	Torch and plasma view	The ICP torch must be vertically aligned, easily mountable by the user,
	Toren and plasma view	preferably a system with computer-controlled axial and radial viewing.
4	Wavelength range	The spectrophotometer must cover the spectral range from 170-780 nm or
-	wavelengen runge	better.
5	Sensitivity	Capable of multi-element analysis with preferably at least 10 ppb sensitivity
		for each element.
	Gas flow control	The instrument must be provided with three independent computer
6		controlled flow controllers for plasma, auxiliary and nebulizer gases
		with the variable gas controller
		The interlock must be continuously monitored, and plasma should

		shutdown automatically if any interruption during the analysis occurs.
		The solid-state RF Generator must run at a frequency of 40 or 27 MHZ or
7	RF generator	better. The RF Power should be variable and a maximum of 1500 W or
	9	better in dual view to handle complex matrix samples.
		The instrument must include a mechanism to eliminate the end of the plasma
8	Plasma	for minimizing self–absorption and physical interference.
		Minimum 4 channels peristaltic pumps with variable speed. The flow rate
9	Peristaltic pump	should be between 0.2 - 7.0 mL/min or better and will have the flexibility to
,	1 cristante pump	add internal standards online.
		Mercury, Arsenic, and other hydride forming elements. A hydride kit
		should be offered.
		Air compressor and purification panels for Argon should be included.
10	Accessories	The vendor should take care of the installation of ducting from the gas
		cylinders to the instrument.
		A suitable fume exhaust system should be quoted.
		A suitable chiller re-circulator with appropriate capacity should be
		provided along with the system.
		Software-based on the windows operating system should be provided for
11	System software	full control of all instrument functions, including plasma ignition, gas flows,
		viewing position, and monitoring of safety interlocks.
		1. Desktop Computer (Leading Brands)- Intel Core i5 10500, Processor
		Base Frequency (GHz) 3.1, DDR4 8 GB, Type of Drives used to
		populate the Internal Bays: HDD,SSD, Capacity of each HDD (GB):
		1000 @7200 rpm, Capacity of each SSD (GB): 512, Number of Internal
		Bays populated with SSD: 1, NVIDIA 2GB or Higher graphics, Cabinet
		Form Factor: Tower (13.1 to 26 Liters), Monitor Resolution (PIXELS):
		IPS, 1920x1080, LED Backlit Monitor Size (INCHES) 24 or 23.8,
		Standard keyboard and mouse, Windows 11 Professional, Microsoft
12	Computer & Accessories	Office Genuine, On Site OEM Warranty (Year): 3
		2. Multifunction Machines (Laser mono printer) - Laser, Multifunction
		Machine, Mono, A4, RAM size (MB) 512, Minimum Speed per Minute
		as per ISO/IEC 24734 in A4 Size-Mono - 27, Scanning Feature
		Availability - Yes, Duplexing Feature Availability - Yes, Type of
		Network Interface - Ethernet 10/100, Wi-Fi Type Wifi 802.11 b/g/n &
		Wifi Direct, Feeder Capacity (Number) 35, Number of Main Paper
		Tray, Bypass Facility Yes, Duty Cycle (No of Prints/ month) 15000, On
		Site OEM Warranty (Year): 3
		Training should be imparted to persons for the required number of working
		days on the operation, instrumentation and maintenance.
13	Training	and the including moralism and maintenance.
		Vendor should provide training on operation and application for each of the

		equipment mentioned in the tender at IIT Palakkad after installation.
		The warranty of the equipment should be at least 36 months from the date of
14	Warranty	installation, along with all accessories and equipment. During the warranty
		period, free upgrades of the Softwares, if any, should be provided.
		The vendor must have a dedicated set of engineers who can attend to
		the call within 48 hours.
		The engineers must be resided in the states of South India (Kerala,
15	Service Support	Karnataka or Tamil Nadu).
15	Service Support	The contact details of service engineers must be mentioned.
		The supplier should provide their willingness to deliver adequate
		support to relocate the instrument at free of cost, whenever the situation
		arises, in the next two years post-installation.
		A high performance auto sampler should be supplied. Auto-sampler
		capable of handling minimum 150 or more samples to be supplied.
		Offered model should have a mechanical Z drive for unmatched
		precision and robustness.
16	Auto commissi	It should have programmable intelligent acceleration and deceleration
10	Auto sampler	speed in three axes for the ultimate performance for all sample types.
		It should have removable trays for easy switching between aqueous and
		organic matrices.
		Dual-rinse channel individually equipped with dedicated wash lines and
		pumped waste channel.
17	Delivery	6 - 8 weeks from the date of PO. Any delay must be promptly
1,	Delivery	communicated to the IIT Palakkad.
18	Annual Maintenance	Annual Maintenance contract for 3 years after the warranty period should be
10	contract (AMC)	quoted separately.
		Auto-sampler capable of handling minimum 150 or more samples must
		be included.
		Must provide single element standards for 20 elements and mixed
19	Other accessories	multi-elements for 21 elements.
		Gas cylinders (5 Argon, 1 Nitrogen) with regulator and gas panels,
		fume hood, 10 KVA online UPS
		Digester(Specification for the digester is given in Table 1)
		2 additional torch kits; 1 additional nebulizer/spray chamber; 1 additional
20	Spare parts	sample introduction kit for HF., extra tubing, consumables for generator and
		filter should be quoted separately.
21	Gas Consumption	Total Argon gas consumption must be less than 12 liter/min for aqueous
	Sus Consumption	samples analysis and it should be clearly mentioned in the brochure.

Technical Specification for Advanced Microwave Digestion System: Table1

S.No	Specifications	Descriptions
1	Vessel type	(a) Solid TFM fluoropolymer construction for body, pressure seal and screw cap.(b) Digestion vessels should be chemical resistant, capable of handling a wider range of Acids & solvents like HNO3, HClO4, H2SO4 etc.
2	Vessel number	16 or more, Full set of vessels and rotors to be provided as standard along with the equipment.
3	Volume	50 mL or more
4	Pressure rating	40 Bar or more.
5	Overpressure protection	Metal Rupture Disc.
6	Operating temperature range	Ambient to 230 °C or more.
7	Magnetron	2000W from 2 magnetrons (2 X 1000W).
8	Microwave output power	1500W peak output.
9	Microwave power control	Unpulsed control over the entire range, adjustable in 1% increments.
10	Temperature control	Direct Temperature Control; in real-time, measures the actual sample temperature in each individual vessel.
11	Pressure control	Direct Pressure Control; contact-free, optical sample pressure measurement system for reference vessels.
12	Cavity and lid	Stainless steel construction
13	Oven access	Rear hinged top lid, samples inserted from above for easy sample access.
14	Digestion vessel insertion	Simple, rugged vessels placed individually in the oven.
15	Overpressure venting	Auto venting type.
16	System control	Touch screen control with real-time display of digestion conditions. Linux operating system running on a PowerPC processor.
17	Warranty	3 years warranty for the complete system.

(Note: It is mandatory for the bidders to provide the compliance statement in tabular column format along with catalogue page number (comply/not comply) for the above points with document proof as required. Failing which bidders will be technically disqualified)

<u>UNDERTAKING BY THE BIDDER</u> (TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)

We here by accept all the Terms and Conditions of the Tender Document and strictly adhere to the same in the event of getting Purchase order. We also declare that the Technical and Financial Bids submitted by us has NO DEIVATION from the Tender Terms and Conditions.

We hereby accept that the PRICES OF THE EQUIPMENTS/ITEMS QUOTED ARE AS PER THE INCOTERMS 2022 - DDP MODE, IIT PALAKKAD AND CLAUSE NO.6 OF THE TENDER DOCUMENT.

DOCUMENT.	
We hereby undertake that there are pages, serially numbered, in the submitted tender including the supporting documents. (Please serially number all the pages including blank page, if any).	
We have submitted our principal's exclusive authorization letter which is specific for this tender No dated	
$\underline{\underline{Note:}}$ This letter should be on the <u>letterhead of the quoting firm</u> and should be signed by a Competent Authority.	
ANNEXURE-III	
FALL CLAUSE NOTICE CERTIFICATE (TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)	
This is to certify that we have offered the maximum possible discount to you in our Quotation No dated (Please do not reveal the prices here, which will lead to outright	
rejection of your bid). The prices charged for the Stores supplied under tender should under no event be higher than the lowest prices at which the party sells the items of identical description to any other Govt. organization/PSU's/Central Govt., /State Govt. Autonomous bodies/Central/state Universities/Central/State Educational Institutions, failing which the "FALL CLAUSE" will be applicable. The institute will look into a reasonable past period to ensure this.	
In case, if the price charged by our firm is found to be more, IIT Palakkad will have the right to recover the excess charged amount from the subsequent/unpaid bill of the supplier.	
Note: This letter of authority should be on the <u>letterhead of the quoting firm</u> and should be signed by a Competent Authority and having the power of attorney.	
ANNEXURE-IV	
UNDERTAKING REGARDING BLACKLISTING / NON – DEBARMENT Tender No.	
To, M/s. Indian Institute of Technology Palakkad Ahalia Integrated Campus, Kozhipara, Palakkad, Kerala 678623	
We hereby confirm and declare that we, M/s $_$ are not blacklisted/ De-registered / debarred by any Government department/ Public Sector Undertaking/ Private Sector/ or any other agency for which we have Executed/ Undertaken the works/ Services.	
For Company Name and Seal Authorised Signatory	
Note: This letter should be on the <u>letterhead of the quoting firm</u> and should be signed by a Competent	

Authority.

Page 12 of 13

FORMAT FOR SELF-CERTIFICATION UNDER PREFERENCE TO MAKE IN INDIA (TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)

Format for Affidavit of Self-Certification regarding Minimum Local Content in line with "Make in India" Policy vide GoI Order no. P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020)

Date:	
I/We	S/o, D/o, W/o,
Resident	t of
Hereby s	solemnly affirm and declare as under:
Order, 2	vill agree to abide by the terms and conditions of the Public Procurement (Preference to Make in India) 2017 (hereinafter PPP-MII order) of Government of India issued vide Notification No:P-45021/2/2017 - ated 15/06/2017, its revision dated 28/05/2018 and any subsequent modifications/Amendments, if any
	local content for all inputs which constitute the said goods/services/works has been verified by me and ponsible for the correctness of the claims made therein.
Tick () and Fill the Appropriate Category
	I/We [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is equal to or more than 50% and come under "Class-I Local Supplier" category.
	I/We [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is more than 20% but less than 50% and come under "Class-II Local Supplier" category.
	I/We [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is less than or equal to 20% come under "Non-Local Supplier" category.
For and on behalf of	
Authorized signatory (To be duly authorized by the Board of Directors) <insert and="" contact="" designation="" name,="" no.=""></insert>	
_	n case of procurement for a value in excess of Rs. 10 Crores, the bidders shall provide this certificate atutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost

accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the

percentage of local content.]